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TOPIC: Comparison of Communist Bloc and NATO Postwar Aircraft Production - 1946-1953*

USAF Declass/Release Instructions On File

1. The following comparison of NATO and Soviet Bloc postwar aircraft production is intended to throw some light on relative NATO military strength, and particularly to point out recent trends. An attempt is made in this paper to determine present operational and reserve aircraft strengths of NATO and the Soviet Bloc by applying attrition rates to these production figures.

CONCLUSIONS

2. Postwar production statistics indicate that in the period 1946-1951 Soviet production of combat aircraft (both in numbers and airframe weight) exceeded that of NATO. However, striking increases in NATO combat aircraft production during 1952-1953 have redressed the balance for the whole postwar period 1946-1953 achieving something very close to equality in numbers and a marked superiority in airframe weight. During 1952-1953 NATO also maintained its clearcut superiority in the production of noncombat aircraft.

3. If present trends continue:

a. Although the Bloc and NATO have thus far produced approximately the same number of combat aircraft since 1946, total NATO production will soon clearly exceed that of the Bloc;

4. These figures have been largely compiled from USAF documents. (See Quarterly Comparison of Aircraft of the US and USSR, 1 Oct. 1950; Quarterly World Aircraft Production Report, 4th Qtr. 1951, 14 Dec. 1951; and AIS 3-1/1, Quarterly World Aircraft Report, 4th Qtr. 1953, 11 Dec. 1953, et al.) US and NATO production figures were compiled largely from official records and can be accepted as reliable. Soviet production estimates are the result of conclusions drawn from incomplete and fragmentary information and consequently are subject to considerable error. The necessity for compiling statistics from several documents, including old publications, has also limited the accuracy of these figures.

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b. The present NATO superiority in the production of all types of jet (except light bombers) and strategic aircraft, especially the more modern types, will probably increase during the foreseeable future.

4. It is also probable that in view of the gaps in the Soviet air arsenal, Soviet emphasis on jet fighters /to be used in both defense and ground attack roles/ and strategic bombers will continue, possibly at the expense of a cutback in jet light bomber production.

DISCUSSION

5. General. USAF figures on Communist Bloc and NATO postwar production of combat aircraft indicate that Soviet Bloc production exceeded that of NATO by about 15 percent in numbers. However, due to lack of available intelligence on Soviet jet trainer production USAF includes jet trainers in Bloc combat plane figures, whereas they are excluded from NATO combat figures and carried as noncombat aircraft. Jet trainer production in the US and UK constitutes about 25 percent of jet production. If it is assumed that Soviet jet trainer production is considerably smaller than in the US-UK, e.g., 15 percent; and these aircraft subtracted from Bloc combat figures, the total combat aircraft produced would be roughly equal to that of NATO.* In terms of combat weight production NATO has clearly surpassed Bloc production. Moreover, NATO production of all aircraft (combat and noncombat), both in numbers and weight has exceeded that of the Soviet Bloc by a considerable margin.

TABLE 1

Total NATO** Production as Ratio
of Soviet Bloc** Production, 1946-1953

<u>Combat Aircraft</u>		<u>Non-Combat Aircraft</u> ***		<u>Total</u>	
<u>No.</u>	<u>Weight</u>	<u>No.</u>	<u>Weight</u>	<u>No.</u>	<u>Weight</u>
.85 (.95)*	1.23	2.70	2.73	1.72	1.70

* In the tables the Bloc jet figures and comparison percentages are unadjusted except where indicated by bracketing and underlining.

** The major contributions to NATO were roughly: US, 65-70 percent; UK, 20-25 percent; Canada, 7 percent; France, 5 percent; and remainder, 2 percent. Except for small contributions from Czechoslovakia and Poland, the USSR has accounted for all Bloc aircraft production. NATO and Bloc production combined accounted for about 95 percent of world production.

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Transports, trainers, communications/utility, reconnaissance, and helicopters.

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6. Postwar Trend. A more detailed comparison of postwar aircraft production falls logically into two main periods: 1946-1951, the period of Soviet Bloc combat aircraft production superiority; and 1952-1953, the period of NATO dominance in both combat and noncombat production.

A. 1946-1951: In this period Soviet Bloc production of combat aircraft probably exceeded that of NATO by nearly 50 percent, (40 percent)* and jet production by nearly 12 percent (-4 percent).* In terms of combat airframe weight Bloc production also exceeded that of the NATO states, but only by a small margin. On the other hand, NATO production of noncombat aircraft, both in numbers and weight, exceeded that of the Soviet Bloc by a considerable margin.

TABLE 2

Total NATO Production of Aircraft as
Ratio of Soviet Bloc: 1946-1951

Combat Aircraft		Non-Combat Aircraft		Total Aircraft	
No.	Weight	No.	Weight	No.	Weight
.69 (.74)	.94	3.70	1.75	1.75	1.12

B. 1952-1953: In this period NATO production went into high gear. During 1952 NATO production of combat aircraft, for the first time in the postwar period, exceeded that of the Bloc by 13 percent in numbers and by about 30 percent in airframe weight. US combat airframe weight production alone exceeded that of the Bloc. In 1953 the NATO superiority was even more marked. NATO production, particularly US, continued to rise rapidly, whereas Bloc production -- due in large part to change in model production in both fighters and bombers -- declined 1 percent in numbers and 12 percent in weight. In 1953 NATO production of combat aircraft exceeded that of the Bloc by about 40 percent in numbers and nearly 100 percent in airframe weight. US production in numbers and airframe weight was greater by 5 percent and 60 percent respectively. Total NATO combat production for the period exceeded that of the Bloc by nearly 30 percent in numbers and over 60 percent in weight. NATO jet production surpassed that of the Bloc by about 35 percent (60 percent).* At the same time NATO production of noncombat aircraft also continued to greatly exceed Bloc production, being roughly twice that of the Bloc in numbers, and five times in airframe weight.

* See footnote *, page 2.

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TABLE 3

Total NATO Production of Aircraft as
Ratio of Soviet Bloc: 1952-1953

<u>Combat Aircraft</u>		<u>Non-Combat Aircraft</u>		<u>Total Aircraft</u>	
<u>No.</u>	<u>Weight</u>	<u>No.</u>	<u>Weight</u>	<u>No.</u>	<u>Weight</u>
1.29 (1.50)*	1.61	2.12	4.94	1.70	2.22

7. Combat Aircraft types: During the whole postwar period the NATO numerical production of jet aircraft has exceeded that of the Bloc by about 7 percent (25 percent). While inferior to the Bloc in the production of jet light bombers, NATO superiority in jet fighter production alone has more than offset this numerical advantage. Moreover, NATO production of strategic aircraft has greatly exceeded that of the Bloc, and includes considerable numbers of more modern types. The greater NATO emphasis upon and capability to produce large strategic bombers, and the greater size of NATO jet fighters (US, 8,500 lbs; UK, 6,500 lbs; USSR, 5,500 lbs) in large part account for the superiority of NATO production in combat airframe weight.

TABLE 4

Combat Aircraft Production, January 1946 - December 1953

	<u>USSR & Satellites (Czech & Poland)</u>	<u>NATO</u>	<u>(US share)</u>
1. Airframe Weight (000's lbs)	271,000	332,000	265,000
2. Numbers:	41,487 (38,100)*	35,223	20,119
Fighters			
Jet	20,208 (17,200)*	22,498	(14,750)
Piston	8,450	5,850	(2,500)
Attack & Light Bombers			
Jet	2,030 (1,730)*	571	(230)
Turbo prop	—	44	(6)
Piston	9,241	3,546	(2,540)

* See footnote *, page 2

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<u>USSR & Satellites (Czech & Poland)</u>		<u>NATO</u>	<u>(US share)</u>
Medium Bombers			
Jet	—	777	{ 777
Piston	1,527	1,689	1,068)
Heavy			
Turboprop	31**	—	—
Piston	—	248	248)

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** Tentative USAF estimate.**SECRET**